

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST PREPARATION

- | | |
|-------------------------|-----------------|
| 1. Aircraft Documents* | Checked |
| 2. Weather | Suitable |
| 3. Baggage | Stowed |
| 4. Weight & C of G | Within Limits |
| 5. Navigation | Planned |
| 6. Navigation Equipment | On Board |
| 7. Performance & Range | Computed & Safe |

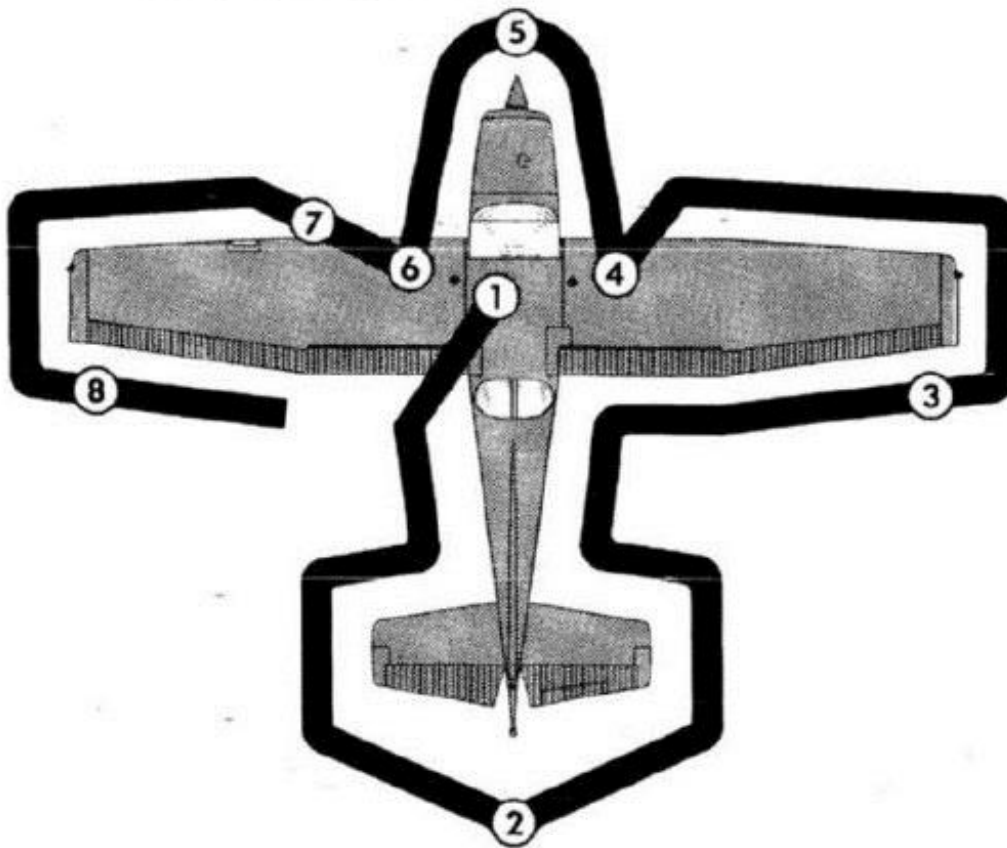
***Documents to be Carried :** C of R, C of A, ARC, CRS, Noise Certificate, Flight Crew license, JLB, Operations Manual, MEL, POH, Cockpit and Emergency Check List, Aeroplane search procedure checklist, G-1000 Cockpit Reference guide, Route guides, Area Map, Weight Schedule, Load and Trim Sheet.

Around aircraft no fuel / oil spillage. Chocks & fire Extinguisher in position.
Area behind aircraft & taxi path clear. Remove pitot cover.

CABIN

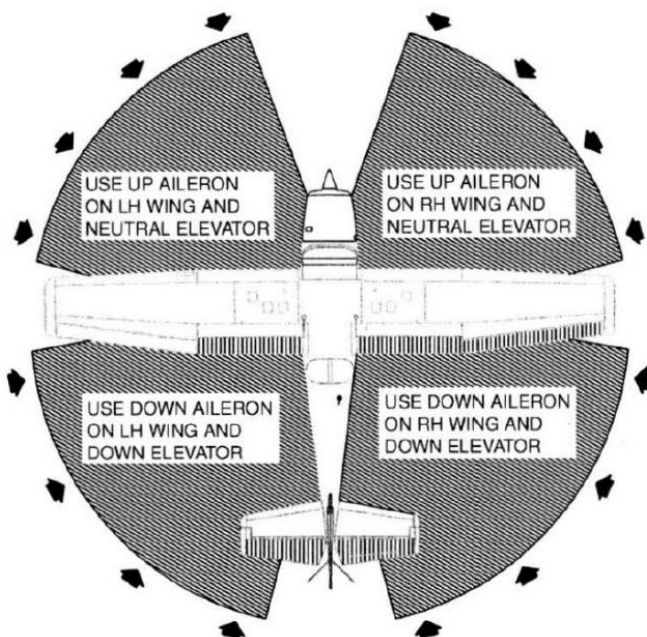
- | | |
|----------------------------------|---------------------------------|
| 1. Pitot Cover | REMOVED |
| 2. Control Wheel Lock | REMOVED |
| 3. Parking Brake | SET |
| 4. MAGNETOS Switch | OFF |
| 5. AVIONICS BUS 1&2 | OFF |
| 6. MASTER Switch (ALT & BAT) | ON |
| 7. PFD | ON (Wait for PFD to Initialise) |
| 8. FUEL QTY(L & R) | CHECK |
| 9. LOW FUEL (L & R) Annunciators | NOT SHOWN |
| 10. Oil Pressure Annunciators | SHOWN |
| 11. LOW Vacuum Annunciator | SHOWN |
| 12. Engine Hrs & Hobbs | NOTED |
| 13. AVIONICS BUS 1 | ON (Front Avionics Fan ON) |
| 14. AVIONICS BUS 1 | OFF |
| 15. AVIONICS BUS 2 | ON (Rear Avionics Fan ON) |
| 16. AVIONICS BUS 2 | OFF |
| 17. Flaps | FULLY EXTENDED |
| 18. PITOT Heat Switch | OFF |
| 19. PITOT Heat Switch | ON for 30 secs then OFF |
| 20. LOW Volts Annunciator | SHOWN |
| 21. MASTER Switch (ALT & BAT) | OFF |
| 22. ALT Static AIR Valve | Full In (OFF) |
| 23. Cabin Heat & Cabin Air | OFF |
| 24. Elevator Trim | Set for Take-Off |
| 25. FUEL Selector Valve | BOTH |
| 26. FUEL Shut-off Valve | PUSH FULL IN |
| 27. Fire Extinguisher | CHECK Pointer in Green |

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST



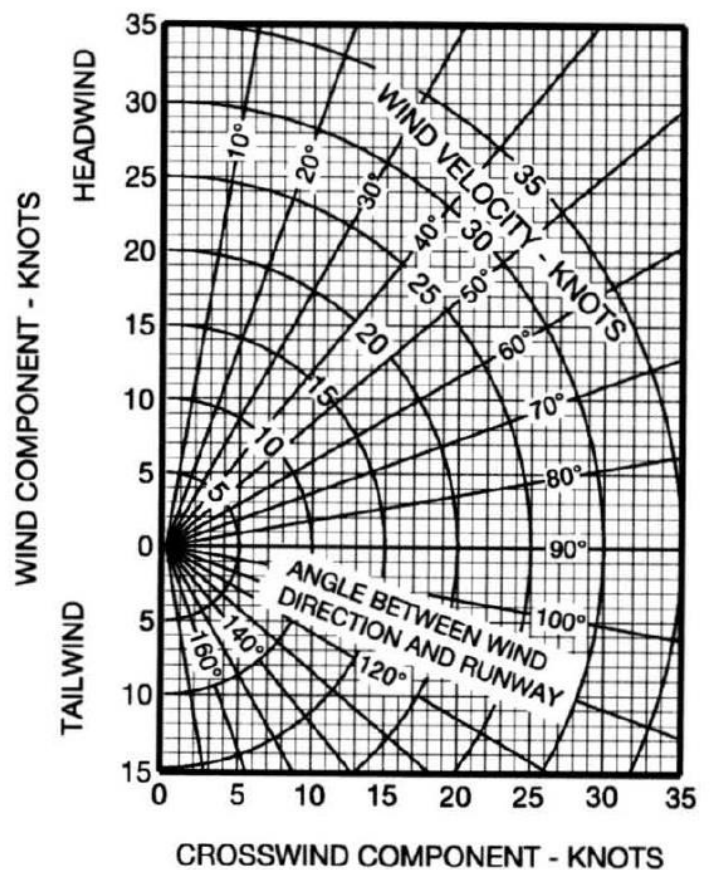
CROSSWIND COMPONENT

TAXIING DIAGRAM



CODE

WIND DIRECTION ➡



CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST
EXTERNAL CHECKS

EMPENNAGE

- | | |
|----------------------------|---------------------------|
| 1. Baggage Door | Check Locked |
| 2. Tail Tie Down | Detached |
| 3. Elevator | Check Freedom of Movement |
| 4. Elevator Trim Tab | Check for Security |
| 5. Antennas | Check for Security |

RIGHT WING Trailing Edge

- | | |
|------------------|--------------------------------|
| 6. Flap | Check for Security & Condition |
| 7. Aileron | Check Freedom of Movement |

RIGHT WING

- | | |
|--------------------------------|---|
| 8. Wing Tie Down | Detached |
| 9. Landing / Taxi Lights | Check for Security |
| 10. Right Tyre | Check Cut, Creep, Pressure |
| 11. Fuel Drains (5)..... | Sample for Water & Sediments |
| 12. Fuel Quantity | Check visually \leq fuel filler marking |
| 13. Fuel Filler Cap | Check Security, Vent Clear |

NOSE

- | | |
|---|---------------------------------|
| 14. Reservoir Tank..... | Sample for Water & Sediments |
| 15. Fuel Selector Drain..... | Sample for Water & Sediments |
| 16. Fuel Strainer Drain (Below Fuselage)... | Sample for Water & Sediments |
| 17. Engine Oil | Check Dipstick (5-8 Quarts) |
| 18. Engine Air & Cooling Inlets | Clear of Obstructions |
| 19. Propeller & Spinner | Check for Cuts, Nicks, Security |
| 20. Air Filter | Check for Dust & Blockage |
| 21. Nosewheel Strut | Strut 3.5", No leaks |
| 22. Nose Tyre | Check Cut, Creep, Pressure |
| 23. Static Source | Check Clear |

LEFT WING

- | | |
|----------------------------|--|
| 24. Fresh Air Inlet | Check condition |
| 25. Fuel Quantity (5)..... | Check visually, \leq fuel filler marking |
| 26. Fuel Filler Cap | Check Security, Vent Clear |
| 27. Fuel Drains | Sample for Water & Sediments |
| 28. Left Tyre | Check Cut, Creep, Pressure |

LEFT WING Leading Edge

- | | |
|---------------------------------|--------------------|
| 29. Fuel Vent | Check for Blockage |
| 30. Stall Warning | Check for Blockage |
| 31. Wing Tie Down | Detached |
| 32. Landing / Taxi Lights | Check for Security |

LEFT WING Trailing Edge

- | | |
|-------------------|--------------------------------|
| 33. Aileron | Check Freedom of Movement |
| 34. Flap | Check for Security & Condition |

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST

BEFORE START

1. Pre-flight.....COMPLETE
2. Passenger Briefing..... COMPLETE
3. Seats & Seat Belts.....ADJUST & SECURE
4. Brakes.....TEST & SET
5. Circuit Breakers.....CHECK IN
6. Electrical Equipment.....OFF
7. Avionics BUS 1 & BUS 2.....OFF
8. St By Batt.....TEST 10" Green Lt ON
9. St By Batt.....ARM Verify PFD ON
10. EIS.....No Red X
11. BUS E Volts.....Min 24 VOLTS
12. BUS M Volts..... Below 1.5 VOLTS
13. BATT S Amps.....CHECK -Ve Amps
14. St By Batt AnnunciatorSHOWN
15. Fuel Selector Valve..... BOTH
16. Fuel Shut Off Valve.....Push Full IN
17. Alternate Air Door.....CLOSED
18. Request START UP.....Call ATC
19. HEADSET.....REMOVE

ENGINE START (BATTERY ONLY)

1. Throttle Lever.....Open ¼ Inch
2. Mixture Control.....IDLE CUTOFF
3. Area Aircraft / PropCLEAR
4. Master Switch (Alt & Bat)..... ON
5. Beacon Light..... ON
6. Cold Start
 - a. Fuel Pump.....ON
 - b. Mixture Control.....Full RICH (3-5 Sec)
 - c. Mixture.....IDLE Cut-off
 - d. Fuel Pump.....OFF
7. Magnetos.....R-L-BOTH-START
8. Mixture Control..... Advance smoothly rich
9. Oil Pressure in 30 to 60 sec.....GREEN
10. AMPS (M BATT & BATT S)...POSITIVE
11. LOW VOLTS Annunciator...NOT SHOWN
- 12. NAV LightON**
13. Avionics BUS 1 & BUS 2.....ON
14. FLAPS.....RETRACT FULLY
15. COMM 02 Only..... VOL 71%
16. Speaker.....ON
17. NAV Frequencies.....SET
18. MFD.....ON, Dhana WPT SET
19. G1000.....FLIGHT PLAN as Req
- 20. MENU.....Manual Brightness to 1%**

WARM UP

1. Check Idle RPM.....675-700 RPM
2. If < 675RPM.....1000 RPM for 2MIN
3. Oil Temp.....Green

Increase RPM to 2000 and bring back to idle twice, Check for smooth engine operations.

4. Oil Pressure Stable.....GREEN

TAXI

1. Taxi Permission.....RECEIVED
 2. Altimeters(PFD Baro & St By)....SET QNH
 3. Chocks.....WAIVE OFF
 4. Parking Brake.....RELEASE
 - 5. Taxi, Landing light.....ON**
 6. Brakes.....TEST
 7. Taxi RPM.....800 – 1000RPM
 8. Instruments.....CHECK in TURNS
- Left/Right Turn :-** Compass & HIS
Decrease / Increase in Hdg, A/H No Bank
TSI Skidding Turn

BEFORE TAKE-OFF

- 1. Taxi, Landing light.....OFF**
2. Parking Brakes.....SET
3. Seat & Seat Belts.....ERECT & CORRECT
4. Cabin Doors.....CLOSED & LOCKED
5. Flight Controls.....FREE & CORRECT
6. Flight Instruments (PFD)..... No Red Xs
7. Altimeters (PFD Baro & St By).....SET
8. G1000 ALT SEL..... SET
9. Stand By Flt Instruments.....CHECK
10. Fuel Quantity (L & R).....CHECK
11. Mixture Control.....RICH
12. Fuel Selector.....BOTH
13. Trim.....SET for TAKE-OFF
14. Throttle Control.....1800RPM
 - a. MAGNETOS DROP.....CHECK
(RPM drop should not exceed 175RPM on either magneto or 50 RPM differential between magnetos)
 - b. VAC Indicator.....CHECK
 - c. Engine Indicators.....CHECK
 - d. Ammeters & Voltmeters.....CHECK
15. Static RPM.....CHECK 2300-2400
16. AnnunciatorsAll OFF
17. Throttle Control.....CHECK IDLE
18. Throttle Control.....1000 RPM or less
19. Throttle Control Friction.....Finger Tight
20. COMM 01 Only..... VOL 71%
21. SPEAKER.....OFF
22. NAV Frequencies.....VERIFY
23. G1000 FLT PLAN.....CHECK
24. CDI Softkey.....SELECT NAV Source
25. XPDR.....2000

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST

- 26. Cabin Power 12V Switch.....OFF
- 27. Flaps(Check Visually).....10°
- 28. Cabin Windows.....CLOSED & LOCKED
- 29. Take-Off Brief.....COMPLETE
- 30. Landing & Taxi lights.....ON**

LINE UP (Memory Item)

- 1. Line Up Permission.....Received
 - 2. Strobe Lights.....ON
 - 3. Magneto.....ON BOTH
 - 4. Mixture.....FULL IN
 - 5. Approach Path & Runway.....Clear
 - 6. Windsock.....Check
 - 7. Parking Brake.....Release
- Enter Runway & Line Up, Nose Wheel straight & along the Centre Line.

TAKE-OFF (Memory Item)

- 1. Take-Off Permission.....Received
- 2. Departure Brief.....Given
- 3. Landing light.....ON
- 4. Hold Aircraft on Brakes.....RPM 1800
- 5. Take-Off Path Clear.....Release Brakes
- 6. FULL POWER, 55 Kts.....Get Airborne

AFTER TAKE-OFF (Memory Item)

- 1. Safely Airborne.....Brakes ON & OFF
- 2. 200 Ft , LL.....OFF
- 3. 300 Ft..... +Ve ROC, SP> 65 kts, Flaps UP

CLIMB (Memory Item)

- 1. Speed.....80 Kts(V_y)
- 2. Throttle Control.....FULL
- 3. Mixture Control...Full in(RICH) till 3000ft
- 4. Mixture Control >3000ft..Lean for Max RPM
- 5. Clearing Turns.....Every 1000ft

CRUISE (Memory Item) 2100-2700 RPM

C ---- Compass -- Check Heading

L ---- Log --Made

E ---- Engine – Mixture Lean

EIS, -- Monitor

Fuel-- Sufficient,

A ---- Altimeter -- Set

Ammeters -- Charging

Annunciators -- OFF

R ---- Radios – Comm & Nav Freq SET

HASELL CHECKS (Memory Item)

H -- Height - 5000 Ft(Sufficient for Recovery)

A -- Airframe - Clean or Flaps - As Req'd

S -- Security - No Loose Articles

- Seatbelts Secure

E -- Engine - EIS -- GREEN

Fuel - Sufficient, flow

L -- Location - Allotted Training Area

- Orientation Point

L – LOOKOUT. Clear of

C – Clouds

H – High Terrain

A – Aircraft

P – Populated & Prohibited Area

LOOKOUT Checks can be done in a 180° Turn
OR in Two 90° Turns

REJOIN CHECKS (Memory Item)

B -- Briefing- Re-join briefing done

R -- Radio - Radio NAV Aids - SET

Rejoin Permission - Received

I -- Instruments - Altimeter & Baro -QNH Set

Ammeters - Charging

Annunciators - OFF

E -- Engine – Power as desired

Mixture RICH for Max RPM

Mixture Full RICH < 3000ft

F -- Fuel - Contents, Flow,

Selector - Both

PRE- LANDING (Memory Item)

1. FLT Instruments.....Check QNH set

2. Mixture Control.....RICH

3. Flaps.....10°

4. Fuel Selector.....Both

5. Brakes.....On/Off

6. Seat Belts.....Secure

BASE or LONG FINAL(Memory Item)

1. Landing Light.....ON

2. Flaps.....20°

3. Speed.....75Kts

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST

FINAL (Memory Item)

1. Landing Clearance.....Received
2. Flaps.....As Required
3. Speed.....70Kts

HAT Check

H - Heading

A - Altitude

T - Timer

AFTER LANDING (Memory Item)

1. Flaps.....UP
2. XPDR.....2000
3. Non-Essential Electrics.....OFF
4. Throttle Friction Control.....Loosen

5T Check

T - Twist

T - Turn

ENGINE SHUT DOWN

1. Parking Brake.....SET
2. Throttle Control.....IDLE
3. Electrical Eqpt.....OFF
4. Avionics BUS 1 & BUS 2.....OFF
5. Mixture Control.....IDLE Cut-off
6. Magnetos.....OFF
7. Master Switch(Alt & Bat).....OFF
8. St By Batt.....OFF
9. Fuel Selector.....Left/Right
10. Engine Hrs & Hobbs.....Noted

T - Timer

T - Thrust

T - Talk

SHORAT

S - Select Attitude

Ho - Hold Attitude

R - Refer
Performance Instruments

A - Adjust Attitude

T - Trim

Speeds: **V_R** – 55 Kts

V_Y – 74 Kts

V_X – 67 Kts

V_S – 40/48 Kts

V_{FE} – 85/110 Kts

V_{NO} – 129 Kts

V_{NE} – 163 Kts



CAA

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST

ENGINE FAILURE AFTER TAKE-OFF

1. Airspeed.....70/65 Kts (flaps Up/Down)
2. Mixture Control.....IDLE Cut-Off
3. Fuel Shut-off Valve.....CLOSED
4. Magneto switch.....OFF
5. Wing flaps.....AS REQUIRED
6. Standby Battery.....OFF
7. Master Switch(Alt & Batt).....OFF
8. Cabin Door.....Unlatched

ENGINE FAILURE DURING FLIGHT

1. Airspeed.....68Kts
2. Fuel Shut-off Valve.....PUSH FULL IN
3. Fuel Selector.....BOTH
4. Electrical Fuel Pump.....ON
5. Mixture Control.....RICH
6. If Started.....Continue the Flight
7. Land.....As soon as Practical

RESTART AFTER ENGINE FAILURE

1. Airspeed..... 68 Kts
2. Fuel Shut-off Valve.....Push Full In
3. Fuel Selector.....BOTH
4. Electrical Fuel Pump.....ON
5. Mixture Control.....RICH
6. Magnetos Switch.....BOTH
(Start the engine if propeller stopped wind-milling due low speed)
7. Electrical Fuel Pump.....OFF
FFLOW GPH shows zero Fuel pump ON

EMERGENCY LANDING WITHOUT ENGINE POWER

1. Seat.....MOST UPRIGHT POSITION
2. Seats and Seat Belts.....SECURE
3. Airspeed - 70 KIAS - Flaps UP
65 KIAS - Flaps 10° - FULL
4. Mixture Control....Idle Cut-Off (pull full out)
5. FUEL SHUTOFF Valve....OFF (pull full out)
6. MAGNETOS Switch.....OFF
7. Wing Flaps....As Req. (FULL recommended)
8. STBY BATT Switch.....OFF
(when landing is assured)
9. MASTER Switch (Alt and Bat).....OFF
10. Doors.....UNLATCH prior to touchdown
11. Touchdown.....SLIGHTLY TAIL LOW
12. Brakes.....APPLY HEAVILY

PRECAUTIONARY LANDING WITH ENGINE POWER

1. Seat.....MOST UPRIGHT POSITION
2. Seats and Seat Belts.....SECURE

3. Airspeed.....65 KIAS
4. Wing Flaps.....20°
5. Selected Field.....FLY OVER
(noting terrain and obstructions)
6. Wing Flaps.....FULL (on final approach)
7. Airspeed.....65 KIAS
8. STBY BATT Switch.....OFF
(when landing assured)
9. MASTER Switch (Alt & Bat).....OFF
10. Doors.....UNLATCH prior to touchdown
11. Touchdown.....SLIGHTLY TAIL LOW
12. Mixture Control...Idle Cut-Off (pull full out)
13. MAGNETOS Switch.....OFF
14. Brakes.....APPLY HEAVILY

ENGINE FIRE DURING START ON GROUND

1. MAGNETOS Switch – START
(continue cranking to start the engine)

IF ENGINE STARTS

2. Power.....1800 RPM (for a few minutes)
3. Engine....SHUTDOWN (inspect for damage)

IF ENGINE FAILS TO START

2. Throttle Control.....FULL (push full in)
3. Mixture Control....Idle cut-off (pull full out)
4. MAGNETOS Switch.....START
(continue cranking)
5. FUEL SHUTOFF Valve....OFF (pull full out)
6. FUEL PUMP Switch.....OFF
7. MAGNETOS Switch.....OFF
8. STBY BATT Switch.....OFF
9. MASTER Switch (Alt and Bat).....OFF
10. Engine.....SECURE
11. Parking Brake.....RELEASE
12. Fire Extinguisher.....OBTAIN
(have ground attendants obtain if not installed)
13. Airplane.....EVACUATE
14. Fire.....EXTINGUISH
(using fire extinguisher, wool blanket, or dirt)
15. Fire Damage.....INSPECT
(repair or replace damaged components and/or wiring before conducting another flight)

ENGINE FIRE IN FLIGHT

1. Mixture Control....Idle Cut-Off (pull full out)
2. FUEL SHUTOFF Valve...OFF (pull full out)
3. FUEL PUMP Switch.....OFF
4. MASTER Switch (ALT and BAT).....OFF
5. Cabin Vents.....OPEN (as needed)
6. Cabin HT & Cabin AIR....OFF (push full in)

CESSNA -172SP LYCOMING : PRE FLIGHT CHECKLIST

7. Airspeed.....100 KIAS
(If fire is not extinguished, increase glide speed to find an airspeed, within airspeed limitations, which will provide an incombustible mixture)
8. Forced Landing.....EXECUTE

ELECTRICAL FIRE IN FLIGHT

1. STBY BATT Switch.....OFF
2. MASTER Switch (Alt & Bat).....OFF
3. Cabin Vents.....CLOSED
4. Cabin HT & Cabin AIR...OFF (push full in)
5. Fire Extinguisher...ACTIVATE (if available)
6. AVIONICS (BUS 1 and BUS 2).....OFF
7. All Other Switches except Magnetos.....OFF
(when sure that fire is completely extinguished)
8. Cabin Vents.....OPEN
9. Cabin HT and Cabin AIR...ON (pull full out)
(when sure that fire is completely extinguished)
10. Circuit Breakers..... CHECK
(for OPEN circuit(s), do not reset)
11. MASTER Switch (Alt & Bat).....ON
12. STBY BATT Switch.....ARM
13. AVIONICS Switch (BUS 1).....ON
14. AVIONICS Switch (BUS 2).....ON

CABIN FIRE

1. STBY BATT Switch.....OFF
2. MASTER Switch (ALT and BAT).....OFF
3. Cabin Vents.....CLOSED
4. Cabin HT & Cabin AIR...OFF (push full in)
5. Fire Extinguisher...ACTIVATE (if available)
(when sure that fire is completely extinguished)
6. Cabin Vents.....OPEN
7. Cabin HT and Cabin AIR...ON (pull full out)
(when sure that fire is completely extinguished)
8. Land the airplane as soon as possible to inspect for damage.

WING FIRE

1. LAND and TAXI Light Switches.....OFF
2. NAV Light Switch.....OFF
3. STROBE Light Switch.....OFF
4. PITOT HEAT Switch.....OFF
5. To keep flames away.....Perform Sideslip
6. Land as soon as possible

LANDING WITH A FLAT MAIN TIRE

1. Approach.....NORMAL
2. Wing Flaps.....FULL

3. Touchdown.....GOOD MAIN TIRE FIRST
(hold airplane off flat tire as long as possible with aileron control)
4. Directional Control.....MAINTAIN
(using brake on good wheel as required)

LANDING WITH A FLAT NOSE TIRE

1. Approach.....NORMAL
2. Wing Flaps.....AS REQUIRED
85 to 110 KIAS - Flaps UP - 10°
Below 85 KIAS - Flaps 10° - FULL
3. Touchdown.....ON MAINS
(hold nosewheel off the ground as long as possible)
4. When nosewheel touches down, maintain full up elevator as airplane slows to stop.